U.S. Fish & Wildlife Service

Spring Creek NFH

American Recovery and Reinvestment Act

Energy Efficiency & Safety Upgrades

Under the American Recovery and Reinvestment Act (ARRA) a $1.34M project was completed at Spring Creek NFH to replace pumps, motors and electrical switch gear. The project allowed for energy efficiency upgrades, safety improvements, and replacement of old and unserviceable mission critical equipment. The project was also submitted to the Bonneville Power Administration (BPA) for a utility monetary incentive for energy efficiency. As a result, $150,000 in incentives was received for direct energy savings. The incentive funds then helped to fund other energy efficiency projects in Region 1.

Success of the Project

Figure 1 New Variable Frequency Drives

There are fourteen pumps in operation at the Spring Creek Hatchery providing process flows. Specifically, there are four aeration pumps, four de-aeration pumps, and four spring water pumps, which were all fixed speed. The project replaced all four spring water pumps, four de-aeration pumps, and six aeration pumps. It also added premium efficiency motors and variable frequency drives allowing for speed control. The energy efficiency portion of the project cost $591K. Projected savings totaled 1,193,670 kWh per year.

Figure 2 New Aeration Pumps and Motors

Continued Reliability

Spring Creek NFH raises more than 15 million Tule Fall Chinook salmon annually. The hatchery uses water from several springs located at the base of the adjacent basalt cliffs, recycling the water through a unique, oyster shell filtration system to conserve water and reduce pollution. Ninety percent of the water used in the hatchery's rearing ponds is recycled. The fourteen pumps and electrical switchgear replaced by this project are the critical components to the system. This project has guaranteed efficient and reliable hatchery operations for the next few decades.

CONSERVING AMERICA'S fisheries

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